LISTING OF AND AMENDMENTS TO CLAIMS:

1. (currently amended) An apparatus that uses a fluid cooling medium to cool a plurality of heat-producing devices arranged in a row along a generalized coordinate direction, with a space between each adjacent pair of devices, the apparatus comprising:

in each space a partition that defines a boundary between a first plenum and a second plenum, the first plenum being used to carry cooling medium across an entrance and thence into a first heat-producing device located on a first side of the partition facing the first plenum, and the second plenum being used to carry cooling medium away from a second heat-producing device located on a second side of the partition facing the second plenum and thence across an exit, wherein the partition is disposed so that the first plenum becomes smaller in cross-sectional area as distance increases from the entrance, and the second plenum becomes larger in cross sectional area as distance decreases toward the exit, the cross sectional area of each plenum being substantially matched to local volumetric flow rate, ~~whereby~~ so that pressure drop of fluid flowing in the plenums is reduced, and wherein the heat producing devices are chips, the chips being on circuit cards, the cards being in a horizontal plane so that said fluid cooling medium flows between said circuit cards from a first plenum to a second plenum.

2. (previously presented) The apparatus as recited in claim 1, wherein the heat-producing devices are disposed in parallel to one another, the first plenum and the second plenum are disposed between each adjacent pair of heat-

producing devices, and the first plenum and the second plenum are complimentary in size and shape so as to occupy the space between adjacent heat-producing devices.

3. (original) The apparatus of claim 1, wherein the partition is angled with respect to the two adjacent heat-producing devices so as to extend from a position that is, at the entrance, further from the first heat-producing device than it is from the second heat-producing device, and is, at the exit, further from the second heat-producing device than it is from the first heat-producing device.

4. (previously presented) The apparatus as recited in claim 3, wherein the heat-producing devices are collections of equipment disposed in racks.

5. (original) The apparatus of claim 1, wherein the heat-producing devices are collections of electronic equipment disposed in racks.

6. (original) The apparatus of claim 1, wherein the heat-producing devices are collections of equipment disposed in racks, further comprising a floor for supporting the racks, the floor having a space beneath it for conducting the cooling medium to the first plenums.

7. (original) The apparatus of claim 6, further comprising floor tiles with openings, the floor tiles being disposed so that the cooling medium flows through the openings from the space below the floor into the first plenums.

8. (original) The apparatus as recited in claim 7, further comprising a fluid-moving apparatus for facilitating flow of the cooling medium.

9. (original) The apparatus of claim 8, wherein the fluid-moving apparatus circulates the cooling medium from the second plenums to the space below the floor.

10. (original) The apparatus of claim 8, wherein the fluid-moving apparatus comprises a plurality of fans.

11. (original) The apparatus of claim 10, wherein the fans are disposed in planar arrays adjacent to the heat-producing devices.

12. (original) The apparatus of claim 8 wherein the fluid-moving apparatus comprises:

apparatus that circulates the cooling medium from the second plenums to the space below the floor, and

a plurality of fans.

13. (original) The apparatus of claim 12 wherein the fans are disposed in planar arrays adjacent to the heat-producing devices.

14. (original) The apparatus as recited in claim 1, further comprising a circulator for circulating the cooling medium.

15. (previously presented) The apparatus of claim 14, further comprising cooling apparatus for cooling said medium after it leaves the second plenums and prior to returning said medium to a space beneath the floor.

16. (original) The apparatus of claim 1, wherein said partition is substantially planar.

17. (original) The apparatus of claim 1, wherein the partition is curved.

18. (original) The apparatus of claim 1, wherein the partition is curved to be convex toward the first plenum.

19. (original) The apparatus of claim 1, wherein the partition has at least one bend along a line so as to define a plurality of planar regions.

20. (original) The apparatus of claim 19, wherein the at least one bend in the partition reduces the cross section of the first plenum and increases cross section of the second plenum.

21. (original) The apparatus of claim 19, wherein the partition has a bend that results in a first region having a first angle θ_1 with respect to a plane of the heat-producing device through which cooling medium enters the heat- producing device, and a second region having a second angle θ_2 with respect to the plane, where θ_1 is greater than θ_2, and the first region is smaller in size than said second region.

22. (original) The apparatus of claim 1, wherein the second plenum is larger in volume than said first plenum.

23. (original) The apparatus of claim 1, in combination with:

at least one row of heat-producing devices in a room, and

at least one fluid-moving apparatus for facilitating flow of the cooling medium.

24. (currently amended) An arrangement for a room, comprising;

spaced parallel units of heat-producing equipment, and

between said units of equipment, a partition defining a boundary between a first plenum for conveying a cooling medium to enter a first piece of said equipment and a second plenum for conveying the cooling medium from a second piece of said equipment, wherein said partition is disposed so that said first plenum becomes smaller in cross sectional area as distance increases from where cooling fluid enters said first plenum, and so that said second plenum becomes larger in cross sectional area as distance decreases to where the fluid leaves said second plenum, the cross sectional area of each plenum being substantially matched to local volumetric flow rate, ~~whereby~~ so that pressure drop of fluid flowing in the plenums is reduced, and wherein the heat producing devices are chips, the chips being on circuit cards, the cards being in a horizontal

plane so that said fluid cooling medium flows between said circuit cards from a first plenum to a second plenum.

25. (currently amended) A method for configuring apparatus for cooling rows of equipment with a cooling medium, comprising:

placing a partition so as to define a boundary between a first plenum for carrying the cooling medium to enter said rows of equipment and a second plenum for carrying the cooling fluid after it has cooled the equipment, wherein said partition is placed so that said first plenum becomes smaller in cross sectional area as distance increases from where cooling fluid enters said first plenum, and so that said second plenum becomes larger in cross sectional area as distance decreases to where said the fluid leaves said second plenum, the cross sectional area of each plenum being substantially matched to local volumetric flow rate, ~~whereby~~ so that pressure drop of fluid flowing in the plenums is reduced, and wherein the rows of equipment include circuit cards having heat producing chips, the cards being in a horizontal plane so that said fluid cooling medium flows between said circuit cards from a first plenum to a second plenum.